

**Before the  
Consumer Power and Conservation  
Financing Authority**

In the Matter of: )  
 ) Docket Number: 2002-07-01  
Rulemaking on Establishment )  
of Target Reserve Level )

**The California Energy Commission Staff Response to California Power Authority  
Board Question on Committed Generation Capacity and Reserve Levels  
Draft - October 15, 2002**

At the September 20, 2002 California Power Authority Board meeting, the Board reviewed filings to the Rulemaking on Establishment of a Target Reserve Level. The Power Authority staff presented a Draft Decision for Public Review and Comment, which prompted a discussion on merchant generator power commitments.

The Board asked the Energy Commission staff:

*What statewide planning reserve margin for 2003 and 2004 does the Energy Commission staff compute using:*

- a) 100 percent of the in-state merchant generation,*
- b) 50 percent of the in-state merchant generation (the draft CPA proposal), and*
- c) Energy Commission estimate of in-state merchant generation that is or will be committed in contracts by December 31, 2002.*

**Energy Commission Staff Response**

The formula that the Commission staff uses to respond to the power Authority question is as follows:

$$\text{Planning Reserve Margin} = \frac{(\text{Installed Capacity} + \text{Demand Response} - \text{Peak Demand})}{\text{Peak Demand}}$$

The formula was approved by Kellan Fluckiger as representing the CPA approach.

The calculated planning reserve margins assuming different reliance on available installed merchant generation capacity are:

- a) 100 percent of available merchant generation = 34% in 2003 and 34% in 2004
- b) 50 percent of available merchant generation = 6% in 2003 and 5% in 2004
- c) 87 percent of available merchant (Secured Capacity) = 27% in 2003 and 2004

## Detailed Supporting Material

Staff uses the information in Table 1 to respond to the above question.

<b>Table 1</b> <b>California Dependable Generation Capacity</b> <b>(MW)</b>		
	<b>2003</b>	<b>2004</b>
<b>Statewide Secured Capacity</b>		
ISO Muni Thermal	1052	1129
IOU Retained	5291	5291
QF	5948	5948
Firm Imports	5095	5095
ISO Hydro	9240	9240
Non-ISO Muni Resources	10404	10229
DWR Contracts	11908	12217
Projected RMR Contracts	7065	7065
<b>Total</b>	<b>56003</b>	<b>56214</b>
<b>Total Statewide Available Resources</b>	<b>65077</b>	<b>67322</b>
<b>Merchant Generation Capacity</b>		
Existing Merchant Thermal	24766	27176
New Merchant	3280	3115
<b>Total</b>	<b>28046</b>	<b>30291</b>
<b>Firm Contracts with CA Merchants</b>		
DWR Contracts	11908	12217
Projected RMR Contracts	7065	7065
<b>Total</b>	<b>18973</b>	<b>19282</b>
<b>Estimated Obligations on CA Merchant Thermal*</b>		
Estimated Direct Access load	*	*
Muni Shortfall- SMUD's Duke, PG&E contracts	*	*
Capacity from interim transition, interim procurement	*	*
<b>Total</b>	<b>5447</b>	<b>7447</b>
<b>Estimated Uncontracted CA Merchant Thermal</b>	<b>36715</b>	<b>38652</b>
<b>Interruptible and Curtailable Resources</b>	<b>1669</b>	<b>1669</b>
<b>Peak Demand (1 In 2 Weather)</b>	<b>52150</b>	<b>53846</b>

\* Aggregated to protect confidential material

Staff does not measure installed capacity and instead uses dependable generation capacity for supply adequacy assessments. Staff used the Power Authority 5 percent derate factor to estimate the difference between installed capacity and dependable capacity. Using this method, total install capacity = total available resources times 1.05.

**Table 1** provides the "secured" dependable capacity that is either owned by California utilities or under contract, including the Qualifying Facility standard offer contracts and projected reliability must run obligations for the next few years. This assumes that the Qualifying Facilities will have an economic incentive to generate up to their contracted capacity volumes and that the Investor Owned Utilities will have the financial resources to pay for the contracted power. Approximately 68 percent of the merchant generators dependable capacity will be secured with DWR contracts and expected reliability must run obligations in 2003, and 64 percent in 2004.

Commission staff also provides an estimate of the California loads that are supplied under Direct Access contracts, known municipal utility contracts with merchant generators and the capacity from the CPUC interim transition and long-term procurement decisions. If merchant generators (or equivalent out-of-state firm contracts that reduce residual demand) will provide for this additional load, approximately 87 percent of their dependable capacity will be secured by contracts in 2003 and 88 percent in 2004. This results in a 27% statewide planning reserve margin for 2003 and 2004.

Please note that this calculation is not the way the Energy Commission calculates planning reserve margins. As requested, we used the CPA method.